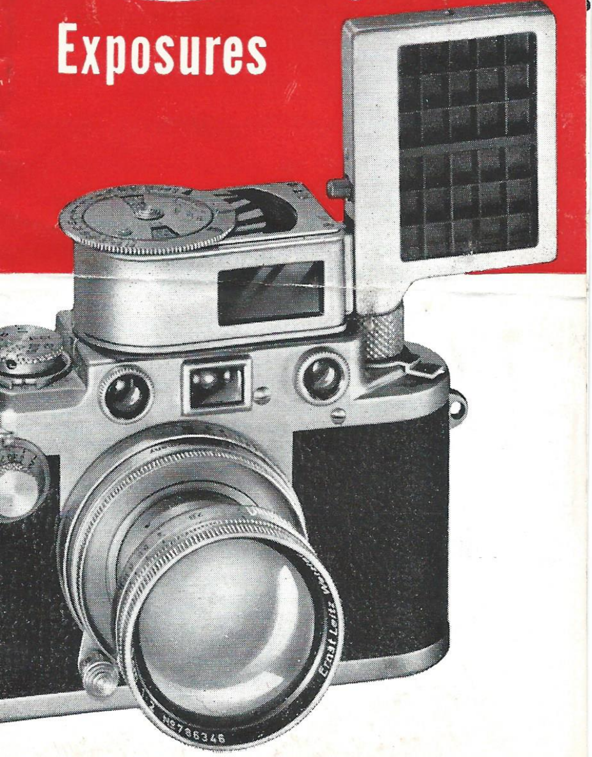
Making
Leica®-Meter
Exposures



Features of the Leica®-Meter

Maximum Safety Against Shock, through spring-loaded microammeter.

Utmost Simplicity. Positive pointer setting without drag. Elimination of transfer of scale values to a computer. Accurately sub-divided ASA scales.

Narrow Viewing Angle. Smaller than the image angle of standard camera lenses; therefore more emphasis on the subject.

Rapid Measurement of exposure time and diaphragm opening by means of channel scale and automatic computation of film sensitivity.

Greater Measurement by Means of Three Measuring Ranges

(a) 60 sec. to 1/1000 sec. with supplementary supersensitive element.
(b) 4 sec. to 1/1000 sec. without supplementary supersensitive element, at f/8 and film sensitivity ASA 24. Equal accuracy by overlapping of the measuring ranges for all values.

Special Light-Sensitive Element, coated and color corrected.

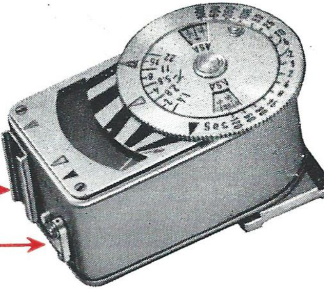
Smaller and Lighter than all existing exposure meters:
weighs approximately 4½ oz. (total)
meter dimensions: 2⅛″ x 1⅜″ x 1 1/16″
supersensitive element: 2¼″ x 1¾″ x 5/16″

Satin-Chrome Metal Finish

Universal. For use in the accessory clip of Leica and similar cameras—can be used on or off the camera.

Principle of the Leica®-Meter

The reflected light from the object passes through a window and a light channel to the surface of a Selenium cell which transforms the incoming light energy into electrical energy. The latter is indicated by a built-in microammeter. Two measuring ranges are obtained by a baffle arrangement which is built into the light channel.



The light channel permits an angle of view for both measuring ranges which is considerably smaller than the field of view of standard camera lenses, which permits particularly accurate measurement, since only the important parts of the subject are used for the measurement.

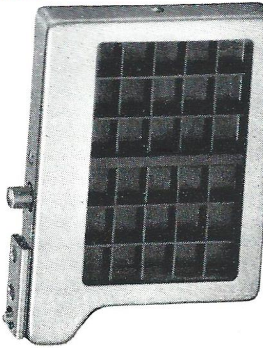
The photo-electric cell, specially coated, records true-color values.

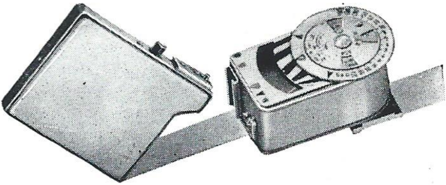
A special spring arrangement makes the measuring element of highest electrical sensitivity immune to mechanical shocks.

Super-Sensitive Element

For measurements under extremely weak light conditions, a supplementary supersensitive element can be inserted into the contact slider. The light sensitivity is thereby increased 16x. The super-sensitive element has a diaphragm consistent with the angle of view in order to eliminate undesirable side light.

The super-sensitive element is used only when light conditions are such that pictures can no longer be taken by hand even though films of highest sensitivity and lenses of maximum aperture are employed.





Directions for Use

The Leica-Meter can be used in the hand, as well as attached to the camera.

Turn the inner disc to a position corresponding to the A.S.A. sensitivity of the film. This setting need only be changed when a film of different sensitivity is used in the camera.

Measurement

▼ *Measuring Range I.*

The light entrance window of the meter is directed towards the subject and the marking ▼ on the outer knurled scale is turned opposite the black or white channel in line with the needle. This will automatically set the required stop as well as the correct exposure time.

▽ *Measuring Range II.*

Under poor light conditions, the baffle lever is flipped forward (see illustration page 4) is turned to position ▽ and the marking ▽ on the knurled scale ring is brought in line with the needle.

⧨ *Measuring Range III.*

(Necessary only for poor lighting conditions.) After the super-sensitive element has been inserted, the index mark ⧨ is used in the same way as described above. Position of the lever becomes immaterial.

Take care not to cover up the light entrance window. The appropriate F stops and exposure times can still be read off even after the Leica-Meter is no longer pointed to the object to be photographed.

The Leica-Meter has a zero-set adjustment to compensate for possible changes in the zero position of the needle. The slotted screw which is underneath the mounting shoe can be turned with a small screw driver either to the right or left, so that the needle will come to rest on zero. The exposure meter has to be held level and the light entrance window must be covered.

Universal Application of the Leica-Meter

The Leica-Meter is designed in such a way that it can be used to slip into the range-viewfinder clip of practically all modern types of cameras.

The shoe has standard dimensions. However, sometimes the rangefinder clip on the camera is a little large or small so that the Leica-Meter does not fit properly. Any repair man can adjust this by pressing the rangefinder clip together.

Care and Handling

Your exposure meter is a precision instrument. It should receive the same careful handling and treatment that are given to an expensive camera or any fine precision instrument. Your meter has been assembled with a watchmaker's skill and should not, under any circumstances, be tampered with or taken apart.

Several general precautions must always be observed.

Extreme Temperatures

Your meter should not be subjected to extreme heat. Temperatures in excess of normal atmospheric conditions (130°F) may be injurious to the photovoltaic cell.

Due to its hermetically sealed construction, the cell is not affected by low temperatures and is resistant to moisture.

Care of Lens

Avoid scratching the lens, or allowing dust to accumulate on its surface, which will hinder the transmission of light.

Carrying the Meter

Although your Leica-Meter will withstand normal shock and handling, be particularly careful not to drop or bang it. Your meter may be conveniently carried in the leather case provided.

Exposure for Outdoor Scenes

Exposure for Black and White

The meter is read when pointed toward the subject from the camera position, in the same manner as you point your camera. This technique is satisfactory for practically all outdoor scenes. The main exception is where the brightness in the background, as viewed by the meter, is widely different from that of the principal subject. Examples of such scenes are back-lighted subjects and dark subjects against light backgrounds. For these scenes, the exposure should be measured by taking a close-up reading on the actual subject or a similar substitute subject.

In making a close-up reading, the meter is actually held as near to the subject as convenient. (Be careful not to measure the shadow cast by the meter.) Although the brightness of a subject is independent of distance, the meter can indicate that brightness so long as it sees only the particular subject; hence, it is held close to small subjects, but may be held proportionately farther from larger surfaces.

As a substitute of corresponding reflectance, the palm of the hand is often convenient. A close-up reading, with the meter held about four inches from the hand, will give dependable exposure for average scenes. If the subject is in a shadow, the hand is held in the shadow of the body.

Exposure for Color

Color photography requires the exact measurement of exposure in order to obtain faithful reproductions. Close-up reading on the principal parts of the subject usually gives the most accurate exposure.

The lightness or darkness of a color transparency is controlled by the exposure, but within the film's latitude the color reproduction is largely determined by the color of the light. *Direct* sunlight between 10 a.m. and 4 p.m. is the best source of light to get accurate results with daylight color film. Illumination from a blue or gray sky or that in the shadow areas usually imparts a bluish tinge to the picture. Direct sunlight is reddish in the early morning and late afternoon.

Most color film of the indoor-roll type is color-balanced for photoflood illumination.

Indoor Scenes

With daylight illumination, open baffle by flipping baffle lever forward; for artificial and weak daylight illumination, simply attach super-sensitive element for readings.

ASA Film Exposure Indexes

Ansco Films	Daylight	Tungsten
35 mm. Film		
Ultra-Speed Pan	100	64
Supreme	50	32
Ansco Color Positive Film		
35 mm. Daylight Type	12	—
35 mm. Tungsten Type	—	12
Eastman Kodak Films		
35 mm.		
Super-XX Panchromatic	100	80
Plus-X Panchromatic	50	40
Panatomic-X	25	20
Infra-Red	—	8*
**With Leitz Infra-Red filter.*		
Kodak Color Film		
Kodachrome, Daylight-35mm.	10	4*
**With Kodachrome Photoflood Filter.*		

Mailing Instructions for Repairs

If your exposure meter becomes damaged and fails to operate, return it to your photographic dealer.

If not convenient to return to the dealer, it should be mailed directly to E. Leitz, Inc., 304 Hudson Street, New York 13, N. Y.

When returning an exposure meter for repairs, attach an identification tag bearing the sender's name, address, and the instrument's serial number.

To avoid further damage during shipment, carefully pack the meter in a stiff, sturdy box; make sure that sufficient padding is around the instrument to absorb the shock of handling.

E. LEITZ, Inc.
304 Hudson Street **New York 13, N. Y.**

No. 1367 Printed in U.S.A. G-12/50-AMP